

VENABLE LLP  
Frank C. Cimino, Jr. (*pro hac vice* forthcoming)  
FCCimino@venable.com  
Megan S. Woodworth (*pro hac vice* forthcoming)  
MSWoodworth@venable.com  
Charles J. Monterio, Jr. (*pro hac vice* forthcoming)  
CJMonterio@venable.com  
600 Massachusetts Ave., NW  
Washington, D.C. 20001  
Telephone: (202) 344-4000  
Facsimile: (202) 344-8300

William A. Hector (SBN 298490)  
wahector@venable.com  
101 California Street, Suite 3800  
San Francisco, CA 94111  
Telephone: (415) 653-3750  
Facsimile: (415) 653-3755

Attorneys for Plaintiff  
Viavi Solutions Inc.

**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA**

VIAVI SOLUTIONS INC.,

Case No. 20-cv-5501

Plaintiff,

V.

PLATINUM OPTICS TECHNOLOGY INC.

**DEMAND FOR JURY TRIAL**

**Defendant.**

## **COMPLAINT**

Plaintiff Viavi Solutions Inc. (“Viavi”) hereby makes this complaint against Defendant Platinum Optics Technology Inc. (“PTOT”) as follows:

## **NATURE OF ACTION**

1. This is a patent infringement action. Viavi seeks damages for PTOT's infringement of Viavi's patented optical filter designs in the United States.

## **INTRADISTRICT ASSIGNMENT**

2. This is an Intellectual Property action and shall be assigned on a district-wide basis pursuant to Civil L.R. 3-2(c) and this Court's Assignment Plan.

## **FACTUAL BACKGROUND**

3. Viavi, formerly known as JDS Uniphase Corporation, is a pioneer and world leader in the fields of three-dimensional (3D) motion sensing technology, light management, and optical coatings, among others.

4. The inventions disclosed in U.S. Patent Nos. 9,354,369 (“the ’369 patent”), 9,588,269 (“the ’269 patent”), 10,222,526 (“the ’526 patent”), and 9,945,995 (“the ’995 patent”), (collectively “the Asserted Patents”) (Exhibits 1-4) and exemplified in Viavi’s state-of-the-art optical filters are indicative of Viavi’s status as a world leader in 3D motion sensing technology.

5. The Asserted Patents generally relate to low angle shift optical filters that employ hydrogenated silicon layers as a high refractive index layer, optical sensor systems including the novel filters and methods of making the same.

6. In a typical gesture-recognition system, a light source emits near-infrared light towards a user. An optical filter is used to transmit the emitted light that is reflected by the user to the 3D image sensor, while substantially blocking ambient light. A 3D image sensor then detects the emitted light to provide a 3D image of the user. A processing system then analyzes the 3D image to recognize a gesture made by the user.

7. The inventors of the Asserted Patents conceived of superior filter designs for such a use. The patented filter designs provide a deep suppression of unwanted ambient light, so that the filters can be used under a wide variety of extreme light conditions. The patented filter designs use hydrogenated silicon layers (which has a relatively high refractive index over the near-infrared wavelength range) to achieve superior optical performance, a desired reduction in filter thickness, and a reduced center wavelength shift with a change in incidence angle. Viavi has invested years of research and development into its 3D motion sensing technology, and has been awarded several related patents, including the Asserted Patents, for its efforts.

1        8. Based on these inventions, Viavi was the first company to offer a commercial  
2 optical filter using hydrogenated silicon for 3D motion sensing. Viavi has enjoyed significant  
3 commercial success with its patented filter designs, and that success is reflective of the electronic  
4 consumer product industry recognizing and replicating features of Viavi's patented technology.

5        9.        Viavi's innovative optical filters won the 2017 Fierce Innovation Award for the  
6 Telecom category, which seeks to recognize "groundbreaking solutions" and "the most  
7 evolutionary and revolutionary technologies" in the industry. Exhibit 5. Through multiple  
8 generations of increasing performance and decreasing cost, Viavi has remained the industry's  
9 leading supplier of high-performance filters for motion sensing systems in consumer electronics.

10        10.      Suppliers to electronic device manufacturers, like PTOT, have incorporated  
11 Viavi's patented filter designs into their optical filters that are in turn used to produce sensing  
12 systems in high-end mobile phones and tablets featuring facial and gesture recognition  
13 technology. In fact, other companies in the industry have recognized the benefits of Viavi's  
14 inventions and have obtained licensing arrangements from Viavi to continue supplying their  
15 optical filters. *See Exhibits 6 and 7.*

## **PTOT'S INFRINGING PRODUCTS**

17        11. In 2019, Viavi filed patent infringement lawsuits against PTOT in China and  
18 Taiwan respectively, concerning PTOT's infringement of foreign counterparts to the Asserted  
19 Patents. From these lawsuits, PTOT had actual knowledge of, or was willfully blind to, the  
20 Asserted Patents. Earlier this year, those lawsuits were resolved and dismissed.

21        12. The Chinese and Taiwanese litigation between Viavi and PTOT involved three  
22 (3) optical filters (referenced herein as PTOT’s “11246,” “TW” and “11694” optical filters) that  
23 include at least one of Viavi’s patented filter designs. Each is a low angle shift optical filter that  
24 employs hydrogenated silicon layers as a high refractive index layer.

25           13. On information and belief, since the resolution of the earlier lawsuits (on or about  
26 May 1, 2020), PTOT has manufactured and sold optical filters that utilize Viavi's patented filter  
27 designs. These optical filters are incorporated into electronic devices that are used, offered for  
28 sale, sold, and imported into the United States.

1       14. More specifically, on information and belief, PTOT is supplying these filters that  
 2 utilize Viavi's patented filter designs for incorporation into 3D motion sensing modules that are  
 3 incorporated into downstream products, e.g., mobile phones and/or tablet devices, that are used,  
 4 offered for sale, sold, and imported into the United States.

5       15. On information and belief, PTOT is supplying at least one of its low angle shift  
 6 optical filters, the PTOT "11246" optical filter or a filter that is not materially different than that  
 7 (the "PTOT Infringing Filter"), for incorporation into electronic devices—such as mobile phones  
 8 and/or tablet devices—that are sold throughout the United States, including this District.

9       16. PTOT holds itself out as "one of the few manufacturers" that provide optical  
 10 filters for 3D motion sensing modules to electronic device manufacturers. *See Exhibit 8.*

11       17. On July 14, 2020, Viavi sent PTOT a letter regarding PTOT's optical filters for  
 12 3D motion sensing modules, explaining Viavi's belief that PTOT's filters were infringing the  
 13 Asserted Patents and that PTOT was knowingly selling its filters for incorporation into  
 14 downstream products intended for the U.S. market. *See Exhibit 9.* From this letter, PTOT had  
 15 actual knowledge of the Asserted Patents and the infringing nature of its optical filters. *Id.*

## PARTIES

17       18. Viavi is a Delaware corporation with its principal place of business and  
 18 headquarters in this District at 6001 America Center Drive, Sixth Floor, San Jose, California  
 19 95002. Viavi also maintains its state-of-the-art research and development facility and a major  
 20 production facility in this District in Santa Rosa, California.

21       19. On information and belief, PTOT is a company organized under the laws of the  
 22 Taiwan, with its principal place of business and headquarters located at 37, Ko Chi 2nd Rd.,  
 23 Taoyuan City, 33383 Taiwan.

## JURISDICTION AND VENUE

25       20. This action arises under the United States Patent Act, codified at 35 U.S.C. § 1 et  
 26 seq., and in particular, 35 U.S.C. §§ 271 and 281-285.

27       21. This Court has original jurisdiction over the subject matter of this action under 28  
 28 U.S.C. §§ 1331 and 1338(a) because the claims arise under the patent laws of the United States.

22. This Court has personal jurisdiction over PTOT because it delivers goods (i.e., its  
2 optical filters) into the stream of commerce. PTOT expects that those goods will be offered for  
3 sale and sold in the United States generally and in California and this District specifically.

23. More specifically, PTOT sold its optical filter with the expectation that it would  
be an essential component of a 3D motion sensing module. PTOT expected that the 3D motion  
sensing module would then be incorporated into mobile phones and/or tablets. PTOT had the  
expectation and knowledge that the mobile phones and/or tablets would be offered for sale and  
sold in the United States generally and in California and this District specifically.

9       24. By knowingly putting the mobile phone into the stream of commerce in this  
10 District, PTOT has purposefully availed itself of the privileges of conducting business in the  
11 United States, California and this District, and sought the protection and benefits from the laws  
12 of the United States and California and thus has subjected itself to personal jurisdiction here.

13        25. This Court has venue over PTOT under 28 U.S.C. § 1391 because, among other  
14 reasons, PTOT is a foreign corporation that does not reside in the United States and therefore  
15 may be sued in any United States judicial district, including this District.

## **FIRST CLAIM FOR RELIEF**

(Infringement of U.S. Patent No. 9,354,369)

18           26. Viavi incorporates by reference the allegations contained in paragraphs 1 through  
19 25 above.

20        27. The '369 patent entitled "Optical Filter and Sensor System" issued on May 31,  
21 2016. A copy of the '369 patent is attached as Exhibit 1. Viavi is the assignee of all rights, titles  
22 and interests in and to the '369 patent and holds the right to sue and recover for past, present and  
23 future infringement thereof.

24        28. PTOT is liable for actively inducing infringement of the '369 patent in violation  
25 of 35 U.S.C. § 271(b) by knowingly taking active steps to encourage and facilitate direct  
26 infringement by others, including one or more electronic device manufacturers that incorporate  
27 PTOT's Infringing Filter into its products and their customers that directly infringe the '369

1 patent by making, using, selling, offering for sale and/or importing into the United States  
2 products that infringe at least one claim of the '369 patent, e.g., claim 1. *See Exhibit 10.*

3        29. PTOT's Infringing Filter is an optical filter comprising a filter stack that has a  
4        plurality of hydrogenated silicon layers that have both a refractive index greater than 3 and an  
5        extinction coefficient of less than 0.0005 over a wavelength range of 800 to 1100 nm, and a  
6        plurality of lower refractive index layers that have a refractive index less than 3 over the  
7        wavelength range of 800 to 1100 nm. Within PTOT's Infringing Filter, the plurality of lower  
8        refractive index layers are stacked in alternation with the plurality of hydrogenated silicon layers.  
9        PTOT's Infringing Filter additionally has a passband that at least partially overlaps with the  
10      wavelength range of 800 to 1100 nm and that passband has a center wavelength that shifts by  
11      less than 20 nm in magnitude with a change in an incidence angle between 0° and 30°, thereby  
12      providing the PTOT optical filter with a wide incidence-angle acceptance range. *See Exhibit 10.*

13       30.     Viavi has been damaged by PTOT's infringement, and will continue to be  
14     damaged by PTOT's infringement, of the '369 patent, and thus is entitled to recover damages  
15     from PTOT to compensate it for the infringement.

16        31. Viavi is entitled to damages adequate to compensate it for the infringement but in  
17 no event less than a reasonable royalty.

18       32. PTOT's past infringement (since May 1, 2020) and/or continuing infringement  
19 has been deliberate and willful.

## **SECOND CLAIM FOR RELIEF**

(Infringement of U.S. Patent No. 9,588,269)

22           33. Viavi incorporates by reference the allegations contained in paragraphs 1 through  
23 32 above.

24       34. The '269 patent entitled "Optical Filter and Sensor System" issued on March 7,  
25 2017. A copy of the '269 patent is attached as Exhibit 2. Viavi is the assignee of all rights, titles  
26 and interests in and to the '269 patent and holds the right to sue and recover for past, present and  
27 future infringement thereof.

1       35. PTOT is liable for actively inducing infringement of the '269 patent in violation  
2 of 35 U.S.C. § 271(b) by knowingly taking active steps to encourage and facilitate direct  
3 infringement by others, including one or more electronic device manufacturers that incorporate  
4 PTOT's Infringing Filter into its products and their customers that directly infringe the '269  
5 patent by making, using, selling, offering for sale and/or importing into the United States  
6 products that infringe at least one claim of the'269 patent, e.g., claim 1. See Exhibit 10.

7       36. PTOT's Infringing Filter is an optical filter comprising a filter stack that has a  
8       plurality of thin film hydrogenated silicon layers that have a refractive index greater than 3 over  
9       a wavelength range of 800 to 1100 nm, and a plurality of thin film lower refractive index layers  
10      that have a refractive index less than 3 over the wavelength range of 800 to 1100 nm. Within  
11      PTOT's Infringing Filter, the plurality of thin film lower refractive index layers alternate, in a  
12      one-to-one ratio, with the plurality of thin film hydrogenated silicon layers. PTOT's Infringing  
13      Filter additionally exhibits interference that creates a passband that at least partially overlaps  
14      with the wavelength range of 800 to 1100 nm and the passband has a center wavelength that  
15      shifts by less than 20 nm in magnitude with a change in an incidence angle between 0° and 30°.  
16      See Exhibit 10.

17        37. Viavi has been damaged by PTOT's infringement, and will continue to be  
18 damaged by PTOT's infringement, of the '269 patent, and thus is entitled to recover damages  
19 from PTOT to compensate it for the infringement.

38. Viavi is entitled to damages adequate to compensate it for the infringement but in  
no event less than a reasonable royalty.

22       39. PTOT's past infringement (since May 1, 2020) and/or continuing infringement  
23 has been deliberate and willful.

### **THIRD CLAIM FOR RELIEF**

(Infringement of U.S. Patent No. 10,222,526)

26           40. Viavi incorporates by reference the allegations contained in paragraphs 1 through  
27 39 above.

1           41. The '526 patent entitled "Optical Filter and Sensor System" issued on March 5,  
2 2019. A copy of the '526 patent is attached as Exhibit 3. Viavi is the assignee of all rights, titles  
3 and interests in and to the '526 patent and holds the right to sue and recover for past, present and  
4 future infringement thereof.

5        42.      PTOT is liable for actively inducing infringement of the '526 patent in violation  
6 of 35 U.S.C. § 271(b) by knowingly taking active steps to encourage and facilitate direct  
7 infringement by others, including one or more electronic device manufacturers that incorporate  
8 PTOT's Infringing Filter into its products and their customers that directly infringe the '526  
9 patent by making, using, selling, offering for sale and/or importing into the United States  
10 products that infringe at least one claim of the '526 patent, e.g., claim 27. *See Exhibit 10.*

11       43. PTOT's Infringing Filter comprises a plurality of layers that include hydrogenated  
12 silicon layers and lower refractive index layers. PTOT's Infringing Filter has a passband that has  
13 a center wavelength that shifts by less than 13 nm in magnitude with a change in an incidence  
14 angle between 0° and 30°. *See Exhibit 10.*

15        44. Viavi has been damaged by PTOT's infringement, and will continue to be  
16      damaged by PTOT's infringement, of the '526 patent, and thus is entitled to recover damages  
17      from PTOT to compensate it for the infringement.

18        45. Viavi is entitled to damages adequate to compensate it for the infringement but in  
19 no event less than a reasonable royalty.

20        46. PTOT's past infringement (since May 1, 2020) and/or continuing infringement  
21 has been deliberate and willful.

## **FOURTH CLAIM FOR RELIEF**

(Infringement of U.S. Patent No. 9,945,995)

24           47. Viavi incorporates by reference the allegations contained in paragraphs 1 through  
25 46 above.

26       48. The '995 patent entitled "Optical Filter and Sensor System" issued on April 17,  
27 2018. A copy of the '995 patent is attached as Exhibit 4. Viavi is the assignee of all rights, titles

1 and interests in and to the '995 patent and holds the right to sue and recover for past, present and  
2 future infringement thereof.

3       49. PTOT is liable for actively inducing infringement of the '995 patent in violation  
4 of 35 U.S.C. § 271(b) by knowingly taking active steps to encourage and facilitate direct  
5 infringement by others, including one or more electronic device manufacturers that incorporate  
6 PTOT's Infringing Filter into its products in violation of 35 U.S.C. §271(g) by importing into the  
7 United States or offering to sell, selling or using within the United States products which are  
8 made by a process claimed in at least one claim of the '995 patent, e.g., claim 1, in the United  
9 States. *See Exhibit 10.*

10        50. PTOT's Infringing Filter is formed using a method that comprises using a direct  
11 current sputtering technique to form, in a deposition chamber associated with a chamber pressure  
12 of less than 2 millitorr (mTorr), a plurality of hydrogenated silicon layers that have a first  
13 refractive index greater than 3 over a wavelength range of 800 to 1100 nm. PTOT's  
14 manufacturing method also forms a plurality of lower refractive index layers that have a second  
15 refractive index less than 3 over the wavelength range of 800 to 1100 nm. As a result of these  
16 methods, PTOT's Infringing Filter has a plurality of lower refractive index layers formed such  
17 that they are stacked in alternation with the formed plurality of hydrogenated silicon layers. *See*  
18 Exhibit 10.

19        51.      Viavi has been damaged by PTOT's infringement, and will continue to be  
20      damaged by PTOT's infringement, of the '995 patent, and thus is entitled to recover damages  
21      from PTOT to compensate it for the infringement.

22        52. Viavi is entitled to damages adequate to compensate it for the infringement but in  
23 no event less than a reasonable royalty.

24        53. PTOT's past infringement (since May 1, 2020) and/or continuing infringement  
25 has been deliberate and willful.

## JURY DEMAND

27 Pursuant to Fed. R. Civ. P. Rule 38(b), Viavi hereby demands a trial by jury on all issues  
28 and claims so triable.

## **PRAYER FOR RELIEF**

WHEREFORE, Viavi respectfully prays for the following relief:

1. Pursuant to 35 U.S.C. § 271, a Judgement that PTOT infringes and has infringed at least one claim of the '369 patent, at least one claim of the '269 patent, at least one claim of the '526 patent, and/or at least one claim of the '995 patent;

2. Pursuant to 35 U.S.C. § 284, compensatory damages, past and future, including lost profits and amounting to no less than reasonable royalties, prejudgment interest, and/or any other available damages based on any form of recoverable economic injury sustained by Viavi as a result of PTOT's infringement, which can be trebled for willfulness under § 284;

3. Pursuant to 35 U.S.C. § 285, an award of any other supplemental damages including Viavi's costs and attorneys' fees incurred in this action; and

4. For such other relief as this Court deems just and proper.

Dated: August 7, 2020

VENABLE LLP

By: /s/ William A. Hector  
Frank C. Cimino, Jr. (*pro hac vice* forthcoming)  
FCCimino@venable.com  
Megan S. Woodworth (*pro hac vice* forthcoming)  
MSWoodworth@venable.com  
Charles J. Monterio, Jr. (*pro hac vice* forthcoming)  
CJMonterio@venable.com  
600 Massachusetts Avenue, NW  
Washington, D.C. 20001  
Telephone: (202) 344-4569  
Facsimile: (202) 344-8300

William A. Hector  
WAHector@venable.com  
101 California Street, Suite 3800  
San Francisco, CA 94111  
Telephone: (415) 653-3738  
Facsimile: (415) 653-3755

Attorneys for Viavi Solutions Inc.